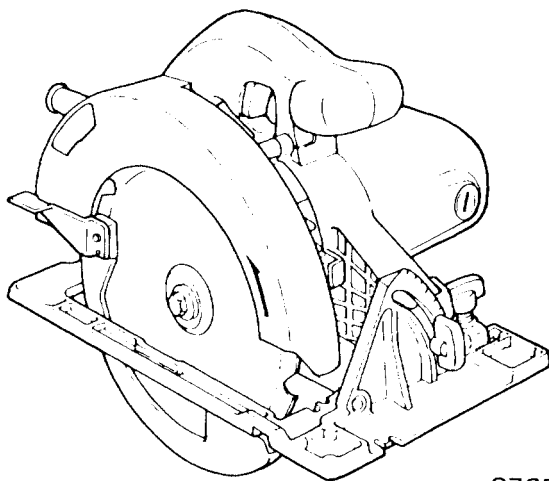


HITACHI

CIRCULAR SAW

MODEL C 7SB • C 8

INSTRUCTION MANUAL



C7SB

Note :

Before using this Electric Power Tool, carefully read through this INSTRUCTION MANUAL to ensure efficient, safe operation. It is recommended that this MANUAL be kept readily available as an important reference when using this power tool.



DOUBLE INSULATION

We sincerely thank you for selecting a HITACHI ELECTRIC POWER TOOL. To operate this electric power tool safely and efficiently, please read this INSTRUCTION MANUAL carefully to get a good understanding of the precautions in operation, capacity of the electric power tool, use and the like.

IMPORTANT INFORMATION: SAFETY RULES FOR POWER TOOLS

WARNING: When using electric tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

- 1. KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
- 2. CONSIDER WORK AREA ENVIRONMENT.**
 - Don't expose power tools to rain.
 - Don't use power tools in damp or wet locations.
 - Keep work area well lit.
 - Don't use tool in presence of flammable liquids or gases.
 - Power tools produce sparks during operation. They also spark when switching ON/OFF. Never use power tools in dangerous sites containing lacquer, paint, benzine, thinner, gasoline, gases, adhesive agents, and other materials which are combustible or explosive.
- 3. GUARD AGAINST ELECTRIC SHOCK.** Prevent body contact with grounded surfaces. For example: pipes, radiators, ranges, refrigerator enclosures.
- 4. KEEP CHILDREN AWAY.** Do not let visitors contact tool or extension cord. All visitors should be kept away from work area.
- 5. STORE IDLE TOOLS.** When not in use, tools should be stored in dry, and high or locked-up place — out of reach of children.
- 6. DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was intended.
- 7. USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy-duty tool. Don't use tool for purpose not intended—for example—don't use circular saw for cutting tree limbs or logs.
- 8. DRESS PROPERLY.** Do not wear loose clothing or jewelry. They can be caught in moving parts.
 - Rubber gloves and non-skid footwear are recommended when working outdoors.
 - Wear protective hair covering to contain long hair.
- 9. USE SAFETY GLASSES.** Also use face or dust mask if cutting operation is dusty.
 - All persons in the area where power tools are being operated should also wear safety eye protectors and face or dust masks.
- 10. DON'T ABUSE CORD.**
 - Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
- 11. SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
- 12. DON'T OVERREACH.** Keep proper footing and balance at all times.

- 13. MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for better and safer performance.
Follow instructions for lubricating and changing accessories.
Inspect tool cords periodically and if damaged, have repaired by authorized service facility.
Inspect extension cords periodically and replace if damaged.
Keep handles dry, clean, and free from oil and grease.
- 14. DISCONNECT TOOLS.** When not in use, before servicing, and when changing accessories, such as blades, bits, cutters.
- 15. REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
- 16. AVOID UNINTENTIONAL STARTING.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
- 17. OUTDOOR USE EXTENSION CORDS.** When tool is used outdoors, use only extension cords intended for use outdoors and so marked.
- 18. STAY ALERT.** Watch what you are doing. Use common sense. Do not operate tool when you are tired.
- 19. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual.
Have defective switches replaced by authorized service center.
Do not use tool if switch does not turn it on and off.
- 20. AVOID USING A POWER TOOL FOR APPLICATIONS OTHER THAN THOSE SPECIFIED.** Never use a power tool for applications other than those specified in the instruction manual.
- 21. ENSURE SAFE OPERATION THROUGH CORRECT HANDLING.**
Secure safe operation through correct handling by observing the instructions described herein.
Do not employ accessories other than those specified herein; otherwise, a hazardous condition may be created.
Never allow a power tool to be used by persons not familiar with correct handling (such as children) or by those who cannot handle the tool correctly.
- 22. CONFIRM THAT NO ITEMS SUCH AS AN ELECTRIC CABLE OR CONDUIT ARE BURIED INSIDE.** In places where live wiring may be hidden behind a wall, floor, ceiling, etc. do not hold or contact any metal parts of the tool. In such cases, metal parts could become electrically live and present a serious shock hazard.
- 23. KEEP THE RIGHT PARTS IN THE RIGHT POSITIONS.** Do not remove covers and screws which have been factory-mounted. They perform important respective roles. Keep them in the right positions.
- 24. SHOULD THE PLASTIC HOUSING OR HANDLE OF A POWER TOOL BE CRACKED OR DEFORMED, DO NOT USE IT.** Since cracked or deformed parts may lead to an operator receiving an electric shock, do not use such a power tool. Immediately have it repaired.

- 25. SECURELY MOUNT ACCESSORIES AND BLADES TO THE TOOL MAIN BODY.** Extra care must be taken when using tools on elevated location (such as a roof ladder, scaffold, or the like) to prevent injury to someone on a lower level in the event the tool and/or accessory should drop.
- 26. ALWAYS KEEP THE MOTOR AIR VENT FULLY OPENED.** A constantly open motor air vent is necessary to allow air to come in and out for cooling the motor. Do not allow it to become clogged up, even if dust is blown through it.
- 27. OPERATE POWER TOOLS AT THE RATED VOLTAGE.** Operate power tools at voltages specified on their nameplates.
- 28. NEVER TOUCH THE MOVING PARTS.** Never touch the moving parts such as blades, bits, cutters and others.
- 29. STOP OPERATION IMMEDIATELY IF ANY ABNORMALITY IS DETECTED.** Should a power tool be detected as out of order or should other abnormalities be observed during operation, stop using the tool immediately.
- 30. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
- 31. CAREFULLY HANDLE POWER TOOLS.** Should a power tool be dropped or struck against hard materials inadvertently, it may be deformed, cracked, or damaged.
- 32. DO NOT WIPE PLASTIC PARTS WITH SOLVENT.** Solvents such as gasoline, thinner, benzene, carbon tetrachloride, and alcohol may damage and crack plastic parts. Do not wipe them with such solvents. Wipe plastic parts with a soft cloth lightly dampened with soapy water.
- 33. WHEN REPLACING A COMPONENT PART, ADOPT THE SAME TYPE.** When replacing a component part with a new one, adopt the same type of new part. Also, never attempt to repair a power tool yourself.
- 34. KEEP GUARDS IN PLACE AND IN WORKING ORDER.** Never wedge or tie lower guard open. Check operation of lower guard before each use. Do not use if lower guard does not close briskly over saw blade.
CAUTION: If saw is dropped, lower guard may be bent, restricting full return.
- 35. KEEP BLADES CLEAN AND SHARP.** Sharp blades minimize stalling and kickback.
- 36. DANGER: KEEP HANDS AWAY FROM CUTTING AREA.** Keep hands away from blades. Do not reach underneath work while blade is rotating. Do not attempt to remove cut material when blade is moving.
CAUTION: Blades coast after turn off.
- 37. SUPPORT LARGE PANELS.** Large panels must be supported as shown in **Fig. 1** to minimize the risk of blade pinching and kickback. When cutting operation requires the resting of saw on the work piece, the saw shall be rested on the larger portion and the smaller piece cut off.

A TYPICAL ILLUSTRATION OF SUPPORT LARGE PANELS

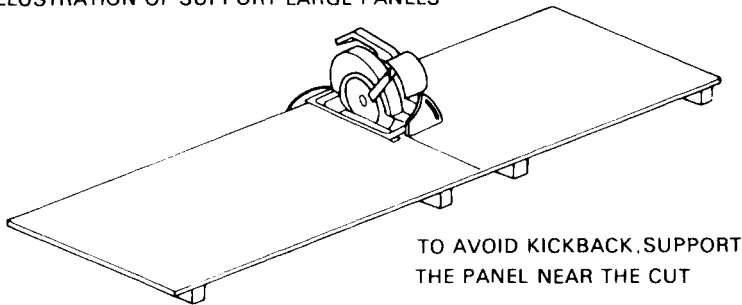


Fig. 1

- 38. USE RIP FENCE.** Always use a fence or straight edge guide when ripping.
- 39. WARNING:** It is important to support the work properly and to hold the saw firmly to prevent loss of control which could cause personal injury. **Fig. 2** illustrates typical hand support of the saw. When operating the saw, keep the cord away from the cutting area and position it so that it will not be caught on the work piece during the cutting operation.

A TYPICAL ILLUSTRATION OF PROPER HAND SUPPORT, WORK SUPPORT, AND SUPPLY CORD ROUTING

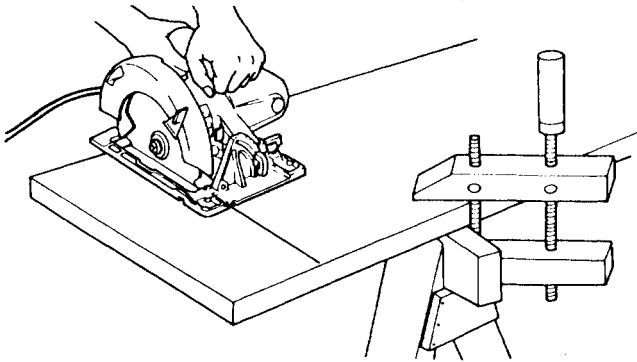


Fig. 2

- 40. GUARD AGAINST KICKBACK.** Kickback occurs when the saw stalls rapidly and is driven back towards the operator. Release switch immediately if blade binds or saw stalls.
Keep blades sharp.
Support large panels as shown in **Fig. 1**.
Use fence or straight edge guide when ripping.
Don't fence tool.
Stay alert exercise control.
Don't remove saw from work during a cut while the blade is moving.
- 41. LOWER GUARD.** Raise lower guard with the retracting handle (Lever).
- 42. ADJUSTMENTS.** Before cutting be sure depth and bevel adjustment are tight.

- 43. USE ONLY CORRECT BLADES IN MOUNTING.** Do not use blades with incorrect size holes.
 Never use defective or incorrect blade washers or bolts.
- 44. AVOID CUTTING NAILS.** Inspect for and remove all nails from lumber before cutting.
- 45. DO NOT RUN THE SAW WHILE CARRYING IT AT YOUR SIDE.**

SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations should **ONLY** be performed by an **AUTHORIZED HITACHI POWER TOOL REPAIR SHOP.**

REPLACEMENT PARTS

When servicing use only identical replacement parts.

POLARIZED PLUGS

To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other).

This plug will fit in a polarized outlet only one way.

If the plug does not fit fully in the outlet, reverse the plug.

If it still does not fit, contact a qualified electrician to install the proper outlet.

Do not change the plug in any way.

EXTENSION CORD

Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. Table shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.

MINIMUM GAGE FOR CORD SETS					
		Total Length of Code in Feet (Meter)			
		0-25 (0-7.6)	26-50 (7.9-15.2)	51-100 (15.5-30.5)	101-150 (30.8-45.7)
Ampere More Than	Rating Not More Than	AWG			
	0-6	18	16	16	14
	6-10	18	16	14	12
	10-12	16	16	14	12
	12-16	14	12	Not Recommended	

DOUBLE INSULATION SYSTEM ENHANCES SAFE OPERATION

To enhance safe operation of this electric power tool, HITACHI has adopted a double insulation system. The term "double insulation" used here denotes an insulation system with two insulations physically separated and arranged between the electrically conductive material connected to the power supply and the outer frame subject to contact by the operator.



DOUBLE INSULATION

Thus, the power tool is termed double insulated and both the "回" mark and "Double insulation", or either one is indicated on the name plate.

While no external grounding is required with this system, normal safety precautions as outlined in this manual must still be followed.

To maintain the effectiveness of the double insulation system, follow the precautions described below:

1. Always contact your dealer or an authorized HITACHI power tool repair shop when assembling, disassembling or replacing parts other than accessories or carbon brushes. Improper assembly and/or replacement with wrong parts may result in eliminating the double insulation-feature.
2. Clean the exterior of the tool with a soft cloth moistened with soapy water, and dry thoroughly. Chloric solvent, gasoline, and thinner will cause plastic components to dissolve.

SAVE THESE INSTRUCTIONS

NAME OF PARTS

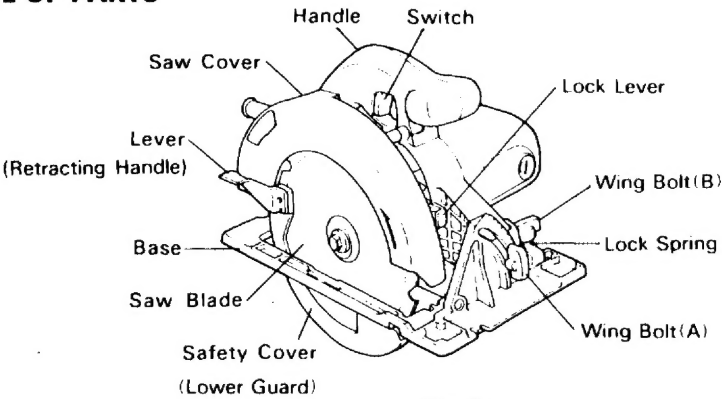


Fig. 3

SPECIFICATIONS

Model:	C7SB	C8
Motor:	Single-Phase, Series Commutator Motor	
Power Source:	Single-Phase 115V AC 60Hz	
Max. Cutting Depth:	2-3/8" (60mm)	2-15/16" (75mm)
Current:	13A	
No-load Speed:	5500 rpm	5000 rpm
Weight:	10.6 lbs (4.8kg)	11.0 lbs (5.0kg)

APPLICATION

- Cutting various types of wood.

PRIOR TO OPERATION

1. Power source

Ensure that the power source to be utilized conforms to the power requirements specified on the product nameplate.

2. Power switch

Ensure that the power switch is in the OFF position. If the plug is connected to a power receptacle while the power switch is in the ON position, the power tool will start operating immediately, inviting serious accident.

3. Extension cord

When the work area is removed from the power source, use an extension cord of sufficient thickness and rated capacity. The extension cord should be kept as short as practicable.

4. Prepare a wooden work bench (Fig. 5)

Since the saw blade will extend beyond the lower surface of the lumber, place the lumber on a work bench when cutting. If a square block is utilized as a work bench, select level ground to ensure it is properly stabilized. An unstable work bench will result in hazardous operation.

CAUTION:

To avoid possible accident, always ensure that the portion of lumber remaining after cutting is securely anchored or held in position.

5. Confirm the power receptacle.

If the power receptacle only loosely accepts the plug, the receptacle must be repaired. Contact the nearest electric store for repair service.

If such a faulty receptacle is used, it may cause overheating, resulting in a serious hazard.

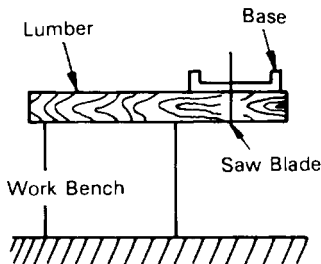


Fig. 5

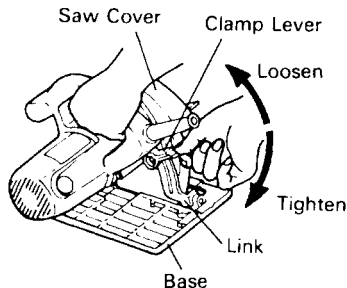


Fig. 6

ADJUSTING THE SAW PRIOR TO USE

1. Adjusting the cutting depth (Fig. 6, Fig. 7)

To adjust cutting depth, loosen the clamp lever and, while holding the base with one hand, move the main unit up and down to obtain the prescribed cutting depth. Inch scale on the saw cover and metric scale on the link provide a general guide to cutting depth. After adjusting to the prescribed cutting depth, tighten the clamp lever securely.

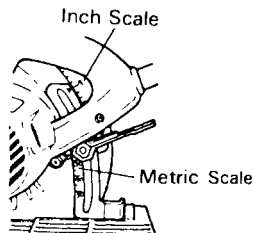


Fig. 7

2. Adjusting the angle of inclination

As shown in **Fig.8** by loosening the wing-bolt on the inclined gauge, the saw blade may be inclined to a maximum angle of 45 in relation to the base. Always insure that the wing-bolt is thoroughly tightened after making the desired adjustment.

3. Regulating the guide (Rip fence)

..... Optional Accessory

The cutting position can be regulated by moving the guide to the left or right after loosening its wing-bolt. The guide may be mounted on either the right or left side of the tool. (See **Fig.9**)

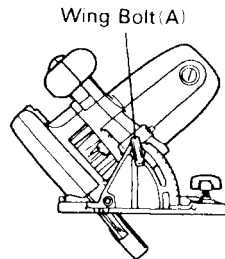


Fig. 8

CUTTING PROCEDURES

CAUTION

- ① Recheck that the saw blade is securely clamped.
- ② Confirm that the clamp lever for adjusting the slot depth, the wing-bolt for adjusting the angle of inclination.
- ③ Grip the saw as shown in **Fig.2** and be sure the cord is free to move through the entire cut without jamming or getting in the path of the saw blade.

1. Place the saw body (base) on the lumber, and as in **Fig.10** align the intended line of cut with the saw blade, using the notch at the front of the base. This relationship of base to lumber should remain unchanged regardless of the inclination of the base.
2. The switch should be turned to the ON position before the saw blade comes into contact with the lumber. The switch is turned ON when the trigger is pulled by one's finger, and is turned OFF when the trigger is released.
3. Moving the saw straight at a constant speed will produce optimum cutting.

CAUTIONS

- ① Before starting to saw, ensure that the saw blade has reached full speed revolution.
- ① Should the saw blade stop or make an abnormal noise during operation, turn off the switch immediately.
- ① During operation, do not cover the slots in the tail to prevent motor burn.
- ① Always take care in preventing the power cord from coming near the revolving saw blade.
- ① When finished with a job, pull out the plug from the power receptacle.

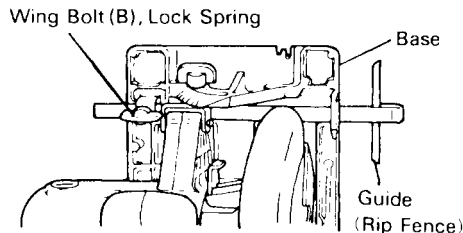


Fig. 9

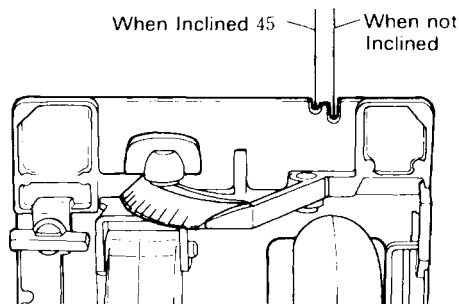
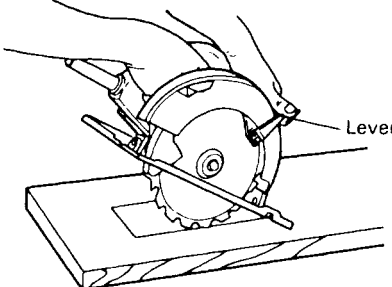


Fig. 10

POCKET CUTTING

CAUTIONS:

- Release trigger after cutting work and disconnect plug from power supply before any adjustment.
 - Never tie or wedge the safety cover in a raised position.
1. Mark the desired cutting area clearly with lines all side. (See **Fig. 11**)
 2. Set depth adjustment according to material to be cut.
 3. Push the safety cover lever all the way back so the blade is exposed as shown in **Fig. 11**.
 4. Tilt saw forward and align the notch (**Fig. 10**) with the pre-marked guide line.
 5. Release the safety cover lever. When the safety cover contacts the workpiece surface, it will be in proper position to open freely when cutting is commenced.
- 
6. Holding the saw in position, with the blade not contacting the workpiece surface, pull the trigger.
7. After the saw has reached full speed, gradually lower rear end of the saw until its base rests on the work surface.
8. Advance saw along the cutting line up to the corner.
9. Release trigger and allow blade to stop completely before withdrawing the blade from the workpiece.
- Never under any circumstances pull the saw backwards while the blade is in motion, as kickback may result.
10. Use a jig saw or hand saw to cut the corners out clean.
11. When starting each new cut, repeat as above.

MOUNTING AND DISMOUNTING THE SAW BLADE

CAUTION:

To avoid serious accident, ensure the switch is in the OFF position, and the power source is disconnected.

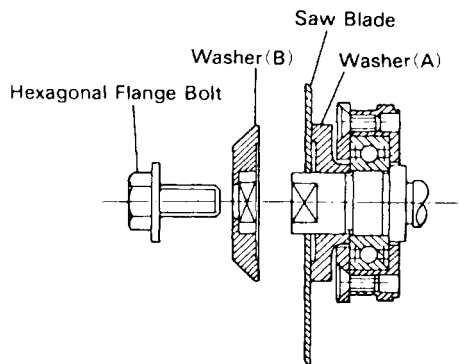
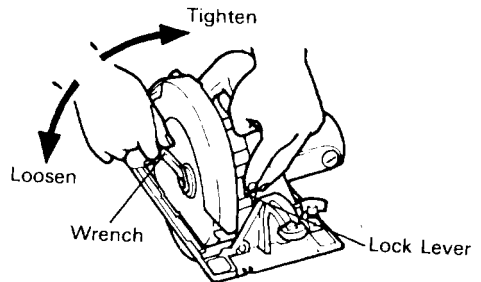
1. Dismounting the saw blade (Fig. 12)

To replace the saw blade, push the lock lever, then loosen the hexagonal bolt with the wrench.

The blade comes off easily.

2. Mounting the saw blade

- (1) Thoroughly remove any sawdust which has accumulated on the spindle, bolt and washers.
- (2) For mounting saw blade, the concave sides of both washers (A) and (B) must be fitted to the saw blade sides. Mount the saw blade on the spindle, and finally affix washer (B) (See **Fig. 13**)
- (3) To assure proper rotation direction of the saw blade, the arrow direction on the saw blade must coincide with the arrow direction on the saw cover.
- (4) Using the fingers, tighten the hexagonal bolt retaining the saw blade as much as possible. Then depress the lock lever, lock the spindle, and thoroughly tighten the bolt.
- (5) Confirm that the lock lever is in the original position.



MAINTENANCE AND INSPECTION

CAUTION:

Be sure to switch power OFF and disconnect the plug during maintenance and inspection.

1. Inspecting the saw blade

Since use of a dull saw blade will degrade efficiency and cause possible motor malfunction, sharpen or replace the saw blade as soon as abrasion is noted.

2. Inspecting the mounting screws

Regularly inspect all mounting screws and ensure that they are properly tightened. Should any of the screws be loose, retighten them immediately. Failure to do so could result in serious hazard.

3. Inspecting the carbon brushes

The motor employs carbon brushes which are consumable parts. Since an excessively worn carbon brush could result in motor trouble, replace the carbon brush with a new one which has the same carbon brush No. shown in figure when it becomes worn to or near the "wear limit". In addition, always keep carbon brushes clean and ensure that they slide freely within the brush holders.

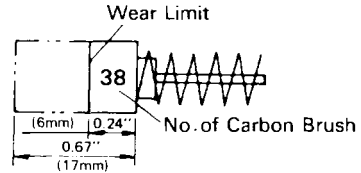


Fig. 14

4. Replacing a carbon brush

Disassemble the brush cap with a minus head screwdriver. The carbon brush can then be easily removed.

5. Adjusting the base and saw blade to maintain perpendicularity

The angle between the base and the saw blade has been adjusted to 90°, however should this perpendicularity be lost for some reason, adjust in the following manner.

- (1) Turn the base face up (Fig. 15) and loosen the wing bolt (A) (Fig. 8).
- (2) Apply a square to the base and the saw blade and, turning the slotted set screw with a minus screwdriver, shift the position of the base to produce the desired right angle.

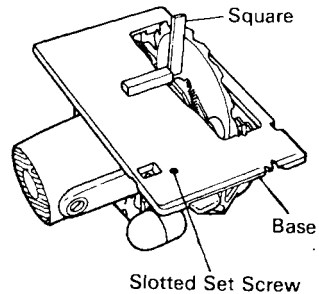


Fig. 15

Note:

Due to HITACHI's continuing program of research and development, the specifications herein are subject to change without prior notice.

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